



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

SPEC LAB
3F-1, No. 383, Sec. 3 Jung-Hua East Road
Tainan, 70167
Taiwan, R.O.C.
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MECHANICAL

Valid To: June 30, 2022

Certificate Number: 2706.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following fastener tests:

<u>Test</u>	<u>Test Method(s)</u>
Hardness and Superficial Hardness – Rockwell (BW, C, 15N, 30N) Vickers (0.3/0.5/1/3/5/10) kgf	ASTM E18, F606/F606M; ASTM E384, E92; ISO 6507-1
Case Depth (Hardness Method)	DIN 7500-1; ISO 2702; IFI 113; SAE J78, J81, J423, J1237
Decarburization (Hardness Method)	ASTM F2328, F2328M; ISO 898-1
Torsional Strength	ASME B18.6.3; DIN7500-1; FIP1000; IFI 113; ISO 898-7, 2702; SAE J78, J81, J933, J1237
Drive Test	ASME B18.6.3; DIN 7500-1; FIP1000; SAE J81, J933, J1237
Drive Torque	FIP1000; SAE J81, J1237; DIN7500-1
Hydrogen Embrittlement	ASME B18.13, B18.13.1M, B18.6.3, B18.6.5M; FIP1000; IFI 113; ISO 15330; SAE J78, J81, J1237
Surface Roughness	ASME B46.1
Surface Discontinuities	ASTM F788 (<i>Exclude section 6.5 and S1</i>), F812 (<i>Exclude section 7</i>)

I. Dimensional Testing¹

Parameter/Equipment	Range	Uncertainty (\pm)	Comments
Angle	(0 to 360) $^{\circ}$	0.21 $^{\circ}$	Visual measuring machine/MT102
Radius	Up to 14 mm	0.024 mm	Visual measuring machine/MT102
Length – 1 D	Up to 25 mm Up to 300 mm Up to 50 mm Up to 152 mm (2 to 5) mm	0.0079 mm 0.016 mm 0.012 mm 0.021 mm 0.0094 mm	Outside micrometer/CNS 4174 Caliper/CNS 4175 80 $^{\circ}$ to 82 $^{\circ}$ protrusion height gage/ ASME B18.6.3, B18.6.5M Length gage/JIS B1071 Tri-Lobular Diameter Gage/MT102 Visual measuring machine/MT102
2 D	Up to 175 mm	0.0086 mm	
External Threads – System 21	#4 to $\frac{3}{4}$ in M3 to M24	N/A N/A	Thread ring gage/ASME B1.2, B1.16M; ISO 1502
Internal Threads – System 21	#4 to 5/8 in M3 to M16	N/A N/A	Thread plug gage/ASME B1.2, B1.16M; ISO 1502 Plain plug gage/ASME B1.2, B1.16M; ISO 1502
Concentricity, Runout, and Perpendicularity	Up to 1 mm	0.040 mm	Dial gage and fixtures/JIS B1071

¹ Commercial dimensional testing service is sometimes available for this laboratory. These tests are not equivalent to that of a calibration.

INACTIVE



Accredited Laboratory

A2LA has accredited

SPEC LAB

Tainan, Taiwan, R.O.C.

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 21st day of May 2020.

A blue ink signature of the Vice President of Accreditation Services.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2706.01
Valid to June 30, 2022

For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.